Sheep & Wool

Most Missouri sheep grow from six to sixteen pounds of wool every year. This wool keeps them very warm. However, sheep would get uncomfortable if they had too much wool during the summer. Therefore, once a year, sheep farmers have their sheep sheared. In early days, shearers used hand shears that were like very sharp, large scissors to remove the wool. Today, shearers use electric shears that quickly remove the wool. Sheep can be sheared any time, but usually it is done in the spring.

When it comes time to shear, most Missouri farmers hire a person to come to their farms to take the wool off of the sheep – this person is called a shearer. Shearers travel from farm to farm shearing many sheep in one day.

The picture above shows a Missouri sheep shearer. Kevin shears not only Missouri sheep but sometimes travels to other states and even other countries to shear. For example, he might shear sheep in Missouri in March and April. Then he might travel to England to shear in May and June, and then to New Zealand to shear during the fall.

A good shearer must be strong because some sheep will weigh more than 200 pounds. The shearer must be gentle with the sheep and will try not to cut the animal as the wool is removed. Sheep have very tender skin, so they are easy to cut. Also, sheep can't be told to sit still like you do when you get your hair cut.

All of the wool that is removed from one sheep is called a fleece. The amount of wool will depend on the size of the sheep and on the kind or breed of sheep.

Any dirty parts of the wool will be removed from the fleece. Then the fleeces will be packed into very large plastic bags. These bags will hold several hundred pounds of wool. The wool will be sold to a company that will then sell the wool to a woolen mill.

At the mill, the wool is scoured (washed) to remove oil and dirt. Some of the oil that is removed is valuable – it is called lanolin and it is used in makeup and hand creams. The wool will then be carded, which will separate the wool fibers. The fibers can then be spun into yarn. The wool yarn can be dyed and is then woven into fabric or knitted into a nice warm sweater.

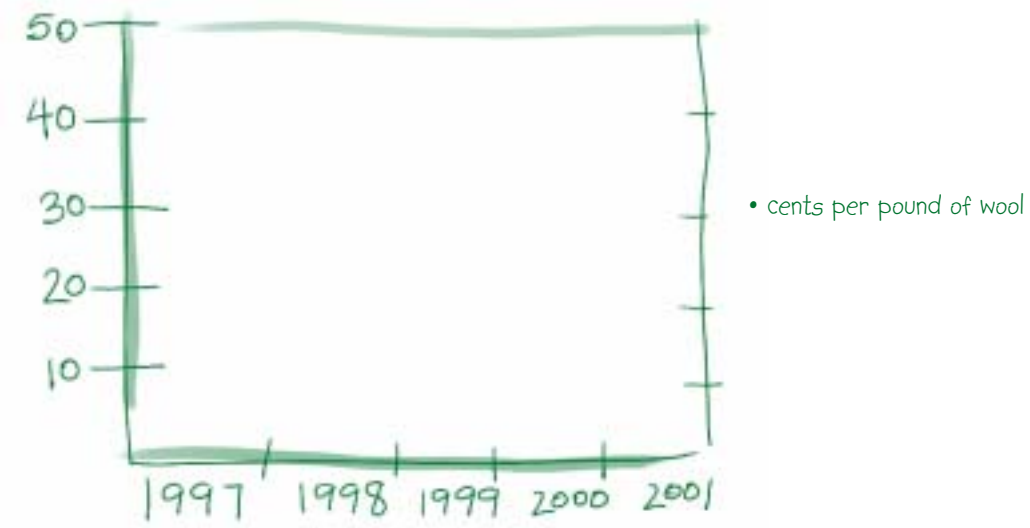
Supply and Demand

Missouri Farm Facts is a book published each year by the Missouri Department of Agriculture. It gives all of the important numbers about Missouri agriculture. Below is a chart that tells about **Missouri wool**. Look at the chart.

Production and Value, Missouri, 1997-2001

Year	Sheep Shorn	Weight per Fleece	Wool Produced	Season Average Price Per Pound	Value of Production
	thousand head	pounds	thousand lbs	cents	thousand dollars
1997	71	7.0	500	45	225
1998	83	7.3	605	33	200
1999	68	7.0	478	14	67
2000	63	6.8	430	10	43
2001	56	7.0	390	9	35

Then make a line graph that shows how wool prices received by Missouri farmers have changed over the past five years.



Australia and New Zealand are the major wool producing countries in the world. The major world buyers of wool are China and Russia. For the last several years, China and Russia have not had enough money to buy large amounts of wool from Australia and New Zealand. Therefore, there is too much wool on the market, and not enough buyers. Since Australia and New Zealand have not been able to sell all of their wool, the price of wool everywhere has been low. This is the reason why most Missouri sheep farmers have not received very good prices for their wool.

We can learn from this problem. In economic terms, we find that prices usually depend on "**supply and demand.**" Right now, there is plenty of wool, meaning that the supply is great. However, the demand for wool is low because some countries do not have enough money to pay for wool that they might like to purchase.

Supply & Demand

Since lots of wool is being produced, but there are not enough buyers for that wool, what do you think happens to the price?

If more people decided to wear wool, but the amount of wool produced stayed the same, what do you think would happen to the price of wool?

For class discussion: Think about some solutions to the low wool price problem. What are things that the worldwide sheep industry might do to make their wool prices higher?

Cotton and wool are not the only fibers produced by Missouri farmers that are found in many of our clothes. Other fibers produced on farms are mohair from Angora goats, angora from Angora rabbits, and linen from the flax plant. All of the fibers produced on Missouri farms are examples of renewable resources. This means that we can grow more of them.

Did you know that some of our clothes are made from fibers made by INSECTS? The large silkworm moth lays eggs that hatch and become caterpillars or larvae that eat only mulberry leaves. When the caterpillar is about 3 inches long or 5 weeks of age it begins to spin a cocoon of fine silk thread around itself. This cocoon is where silk threads come from. These threads can then be woven into fine silk fabric that is often dyed with bright colors.

Some of our clothes are made by industrial means and we refer to them as synthetics. An example of a synthetic fiber is polyester. Many of the synthetic fibers are made from oil or petroleum products and are not considered to be renewable (nonrenewable).

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Shearing Calculations

Kevin sheared 100 sheep today. If each sheep produced 7 pounds of wool, how many pounds of wool does the farmer have to sell?

If a wool bag holds 200 pounds of wool, how many wool bags should the farmer buy?
(Note: You cannot buy a part of a wool bag.)

Kevin can shear one sheep in three minutes. How many can he shear in an hour?
(Hint: How many minutes are in one hour?)

How many sheep can Kevin shear in an eight-hour workday?

If he charged $2.00 per sheep that he sheared, how much did he make per day?

If a farmer has 800 sheep, how many days will Kevin have to shear?

Here are the numbers of sheep that he sheared each day:

Monday	100
Tuesday	90
Wednesday	110
Thursday	120
Friday	80

How many total sheep did he shear this week?

What was the average number of sheep that he sheared each day?